



OFFICE OF THE LEGISLATIVE AUDITOR

STATE OF MINNESOTA

Local E-Government: A Best Practices Review

April 30, 2002

This study identified seven best practices for effective e-government provided by counties, cities, and school districts. The report recommends that local governments adopt these best practices if they offer e-government.



Recommended Best Practices:

- Before deciding to proceed with e-government, local governments should assess whether to offer it.
- While planning, local governments should

evaluate others' Web sites and look for opportunities to collaborate.

- Local governments should plan the implementation of their Web sites, including identifying the dollars and personnel skills needed.
- Commensurate with the level of risk, local governments need adequate security to protect Web sites and related equipment and databases.
- Local governments should set policies to guide e-government, including policies on privacy and public access to data.

- In designing Web sites, local governments should follow guidelines on format and presentation and test pages before releasing them.
- Local governments should evaluate their Web sites and revise them based on user feedback.

In addition to these recommended best practices, the review found that:

- Large jurisdictions were more likely than small ones to have Web sites. In 2001, about 63 percent of Minnesota counties and school districts offered some form of e-government compared with 29 percent of cities (most of which were larger cities).
- The proportion of residents using the Internet in 2001 was higher in Minnesota than in all states but Alaska and was tied with New Hampshire. The number of Minnesotans with Internet access in 2001 increased 10 percent over 1999.

Local governments should get involved with e-government only after determining they have the resources to maintain a Web site.

The full report, *Local E-Government: A Best Practices Review* (#pe02-08), is available at 651-296-4708 or:

www.auditor.leg.state.mn.us/ped/2002/pe0208.htm

Report Summary:

E-government is information or services provided on-line by local governments to individuals using the Internet and Web sites. It ranges from simple Web sites conveying only basic information to very complex sites that transform the customary ways of delivering local services.

Because successful e-government requires ongoing resources, local governments need to weigh the potential costs against likely benefits before implementing it. For effective Web sites, local governments should follow seven best practices.

1. Assess Whether to Offer E-Government

In preparing for e-government, local governments should set strategic goals and objectives. As part of their strategic thinking, they should decide which local services are suitable for on-line delivery. They also need to determine whether they have access to the technology, expertise, and funding that e-government requires over the long term. Local governments with multiple departments need to coordinate Web-related activities. From the beginning, local governments should identify the potential users of their Web sites and understand what they need.

A survey of Minnesota's local governments revealed that of those with Web sites, about 40 percent of school districts, and just 10 percent or less of counties and cities, had written strategic plans covering e-government. Most local governments reported assessing their readiness for e-government in certain areas before implementing it. Just under half of local governments reported at least some success in identifying potential users' needs.

Example: *In developing its Web site, the city of **Buffalo** collected information about potential users by surveying a sample of residents, analyzing the questions frequently asked at city hall's front desk, and working with city departments to identify information that users needed. On the Web site, the city invites users to offer ideas and feedback, and it includes a direct e-mail link to city staff responsible for maintaining the site.*

2. Assess Opportunities for Collaboration

To benefit from others' expertise and to share resources, local governments considering e-government should evaluate similar government Web sites and learn from others. By exploring partnerships with other entities, local governments may be able to share costs. Between 37 and 49 percent of local governments offering e-government reported working with others while either planning, implementing, or maintaining their Web sites.

Example: *In the **Red Rock Central School District** located in southwestern Minnesota's Redwood County, district staff teamed up with a nearby farmers' cooperative to develop infrastructure for wireless, high-speed Internet access that would connect residents of the district's five geographically dispersed cities. In exchange for financial backing and the use of its grain elevators to mount wireless transmitters, the farmers' cooperative receives ongoing technical support and high-speed Internet access to connect its remote office locations.*

3. Prepare to Execute and Fund E-Government

In preparing for e-government, local governments should detail the steps they plan to take and analyze the economics of their proposed initiatives. Web sites demand ongoing resources over time.

Strategic thinking should guide the development of e-government.

Consequently, local governments should examine their sites' "total costs of ownership," including costs for maintenance, training, and equipment disposal. Knowing the full costs of e-government initiatives, local governments should develop a strategy to fund them. They should also assign responsibility for e-government to a central department or individual.

Only about 17 percent of local governments reported that they formally planned the implementation of e-government once they decided to proceed. One-third of local governments reported estimating life-cycle costs for items such as contracts with Internet service providers, but fewer did so for other expenses. Nearly two-thirds of local governments offering on-line information or services were at least somewhat successful in assigning e-government responsibility to a specific project manager or department.

Example: *In 1999, Blue Earth County created a position for a public information coordinator whose job duties included keeping the Web site current and viable. Although the county had developed a Web site two years earlier, the site had not been consistently updated. Working with individual county departments, the public information coordinator ensured that the Web site described each department accurately, contained current information, and better met citizens' needs.*

4. Provide Security

All jurisdictions offering e-government need to implement security measures to protect against external and internal threats, and higher risk sites will require greater security than others. Local governments should assess risks to their Web sites and related equipment and databases. Based on that assessment, they should develop security policies to protect their investments. Local

governments should install "firewalls," use up-to-date antivirus programs and be prepared for security incidents. They should manage employee access to the Web site and related data. Local governments should test security measures and provide for outside parties to assess whether security is sound.

Less than half of local governments offering e-government reported having conducted a partial or full risk assessment. Nearly 53 percent reported that they had fully developed plans for Web-site data backups and disaster recovery. About 31 percent had fully reviewed the adequacy of their security, and 11 percent provided for a full third-party assessment of security controls.

Example: *The Minneapolis School District has prepared disaster-recovery plans for its information technology systems. In its plan, the district analyzes the scope of possible disasters that could interrupt computer services, designates a disaster recovery team, and assigns each team member specific tasks under various disaster scenarios. Agreements with outside organizations allow the district to continue computer processing at remote sites should a disaster strike.*

5. Set a Policy Framework to Guide E-Government

To manage e-government, local governments should adopt policies that govern how employees use the Web sites to conduct business, control which data will be published on-line, and determine how the Web sites will be marketed. Local governments should also set a privacy policy and display it prominently on their sites. They need to determine whether their Web sites are sufficiently accessible to users with disabilities and those who do not speak English.

Security is essential to e-government.

Of local governments offering e-government, 43 percent reported that they had written policies to delineate the purpose of using the Web site to accomplish their business. Very few had developed policies to market their Web sites, and few had privacy policies governing what information would be collected from site visitors. About 14 percent indicated that their sites complied with guidelines to make Web sites accessible for people with disabilities, but most simply did not know whether their sites complied.

Example: *At the bottom of each page on the **Stearns County** Web site is a link to the county's privacy policy. The county states its purpose for collecting information (such as e-mail addresses) from visitors and declares that it will not sell or transfer the information to third parties unless required to by law or court order. The policy also makes clear that the county intends to keep confidential any sensitive information collected from site visitors.*

Local governments need to provide ongoing maintenance of their Web sites.

6. Make the Web Site Function Optimally

Local governments should design their Web sites to meet user needs and their own e-government objectives. This includes following accepted practices on the visual style of Web pages, such as identifying the jurisdiction on each page and using uncluttered pages with consistent headers and fonts. Before launching Web pages, local governments should test and make sure that they function as intended. They must also plan for ongoing maintenance.

About 78 percent of the local governments offering e-government indicated that, in developing their Web sites, they defined the likely target audience for the site. High percentages of local governments reported meeting certain guidelines that make Web sites readable, such as displaying contact

names, addresses, and telephone numbers. About 67 percent of local governments offering e-government reported that they had assigned responsibility to test Web pages. Only 8 percent had written plans describing procedures for Web site upkeep.

Example: *In a recent redesign of its Web site, **Ramsey County** made changes to better meet its users' needs. The county conducted an on-line survey, querying users about what information and services they wanted. Staff also analyzed statistics showing which Web pages had the highest level of interest among users. The redesigned site presents viewers with subjects listed by users' likely interests, such as "recreation." The site's appearance is more consistent from page to page than previously, and the home page changes frequently depending on users' interests and the season of the year.*

7. Evaluate E-Government

Local governments should evaluate their Web sites to determine how well they meet e-government goals. They should also identify enhancements and revise their Web sites periodically. Just 19 percent of local governments offering e-government reported that they had evaluated their Web sites. However, half reported that they had revised their sites based on feedback from users.

Example: *Although the city of **Plymouth** has had a Web site since 1996, staff view it as a service that needs ongoing revisions. Over time, staff have made minor revisions based on reactions to the site and their analysis of usage patterns. In addition, staff are planning a major redesign in an effort to expand the site, make it easier to navigate, and make it easier to manage with city departments providing updated Web content. In response to feedback, the city is considering on-line utility information with the possibility of on-line utility payments.*